



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,932	09/17/2001	Hendrikus Jan Kapaan	110191	4418

25944 7590 10/09/2002

OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER

KRAMER, DEVON C

ART UNIT	PAPER NUMBER
----------	--------------

3683

DATE MAILED: 10/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/889,932

Applicant(s)

KAPPAAN ET AL.

Examiner

Devon C Kramer

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.

- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-529)
- 6) ☐ Other: \_\_\_\_

CHRISTOPHER P. SCHWARTZ  
PRIMARY EXAMINER

## **DETAILED ACTION**

### ***Specification***

- 1) This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
- 2) The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

**Please insert the appropriate headings in the application.**

- 3) The disclosure is objected to because of the following informalities: Page 1 line 18, cites "and stuff support" which should be --and stiff support--.

Appropriate correction is required.

***Claim Objections***

- 4) Claim 27 is objected to because of the following informalities: The preliminary amendment cites "Please replace claims 5, 7, 10-11, 18-19, 21 and 26-32". Please note that a new claim 27 was not presented in the amendment. The examiner has not examined claim 27 on its merits because it is unclear if applicant intended to cancel this claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

- 5) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 6) Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 3 and 33 recite the phrase "for example" or "e.g." renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claims 1 and 33 recite the limitation "the rotor" in line 6. There is insufficient antecedent basis for this limitation in the claim. Please note that the dependents of claim 1 cite "the rotor" also, including claims 3, 10, 14-15, 23-24, 26.

Claim 5 recites the limitation "the outer ring" in line 2. There is insufficient antecedent basis for this limitation in the claim. Please note that the dependents of claim 5 cite "the outer ring" also, including claims 6.

Claim 7 recites the limitation "the outer ring" in line 1. There is insufficient antecedent basis for this limitation in the claim. Please note that the dependents of claim 7 cite "the outer ring" also, including claims 8-9.

Claim 8 recites the limitation "the integrated outer ring" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the inner ring" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "the outer ring" in line 2. There is insufficient antecedent basis for this limitation in the claim. Please note that the dependents of claim 19 cite "the outer ring" also, including claims 20-22, 26.

Claim 22 recites the limitation "the internally toothed member" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claims 30-31 recite the limitation "the screw mechanism, support bearing, auxillary bearing and reduction gear mechanism" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. Applicant does not establish antecedant basis for these components in claim 1.

Regarding claim 31, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

**Please note that because of the numerous 112 rejections in the claims, the examiner may have missed an antecedent basis rejection. Applicant is asked to please review the claims to ensure that there will be no further 112 antecedent basis rejections.**

***Claim Rejections - 35 USC § 102***

7) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8) Claims are rejected under 35 U.S.C. 102(b) as being anticipated by Kingston et al (5931268).

In reference to claims 1 and 33, Kingston et al provides an actuator, comprising: a housing (40) accommodating a screw mechanism (43); a drive including a motor (42); the screw mechanism including a nut and a screw one of which is rotatably supported with respect to the housing (col 4 lines 1-30), such that upon relative rotation of the nut and the screw a linear movement of one of the nut and screw is obtained; and a rotatable component of the drive is rotatably supported on the screw.

In reference to claims 2 and 3, Kingston et al provides an actuator where the screw is rotatably supported with respect to the housing by a support or auxiliary bearing (46) through drive shaft (44).

In reference to claim 7, Kingston et al provides an actuator where the outer ring of the bearing supports a rotatable sleeve (44) which is in connection with the rotatable component of the drive. Please note that the portion of element 44 is considered a sleeve because it is annular and fits over the outer ring of the bearing.

In reference to claim 10, Kingston et al provides an actuator where the sleeve is connected to the rotor of the motor.

In reference to claim 11, Kingston et al provides an actuator where where the nut and the screw are rotatably supported both according to an axis parallel with respect to the linear movement, and according to at least on axis transverse with respect to the linear movement.

In reference to claim 30, the examiner takes official notice that elements of gearing and parts under a high load are conventionally formed by hard turning.

***Claim Rejections - 35 USC § 103***

9) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3683

10) Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kingston et al in view of Chaire (5293966).

It is known in the art to produce load bearing parts of high strength material. Kingston et al is silent to the material used to produce the components of the device.

Chaire teaches the use of producing load bearing parts out of a carbon.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the load bearing parts of Kingston et al with carbon material as taught by Chaire, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

11) Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kingston et al in view of Tanaka.

It is known in the art to use an encoder to measure rotation. Kingston et al lacks the teaching of an encoder for measuring relative rotation.

Tanaka teaches the use of an encoder for measuring relative rotation.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the actuator of Kingston et al with the encoder as taught by Tanaka in order to measure the relative position of the internal parts.

***Allowable Subject Matter***



Art Unit: 3683

12) Claims 4-6, 8-9, and 12-29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

**Conclusion**

13) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fargier et al, Takahashi et al, Schoner et al, Suzuki et al, Yamaguchi et al, Siler et al, Kapaan et al and De Vries et al all provide actuators similar to that of the instant application.

14) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C Kramer whose telephone number is 703-305-0839. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-3519 for regular communications and 703-308-3519 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1134.

DK  
October 7, 2002

CHRISTOPHER P. SCHWARTZ  
PRIMARY EXAMINER

